

Notice of Allowability

Application No.

09/640,068

Examiner

James A. Thompson

Applicant(s)

ASADA, KENICHIROH

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02 December 2005.
2. ☒ The allowed claim(s) is/are 1-3, 7, 9-13 and 15-29.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see page 9, lines 6-7 and lines 13-14, filed 02 December 2005, with respect to the objection to claim 8 have been fully considered and are persuasive. The objection to claim 8, listed in item 3 of the previous office action, dated 26 August 2005 and mailed 13 September 2005, has been withdrawn.

2. Applicant's arguments, see page 9, line 15 to page 12, line 13 and page 13, lines 5-19, filed 02 December 2005, with respect to the rejections of claims 1 and 26 under 35 USC §103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

3. Applicant's arguments, see page 12, line 14 to page 13, line 4, filed 02 December 2005 have been fully considered but they are not persuasive.

Applicant argues that Miyakawa (US Patent 5,084,762) fails to teach or suggest that a threshold value is set lower with respect to black, than a threshold of other colors, as recited in claim 1.

Examiner responds that Miyakawa alone has not been relied upon to teach that a threshold value is set lower with respect to black, than a threshold of other colors, as recited in claim 1. Rather, it is by combination with Kamon (US Patent 5,920,646) and Accad (US Patent 5,553,200) that a threshold value is set lower with respect to black, than a threshold of other colors, is taught. Page 6, lines 21-25 of said previous

Art Unit: 2625

office action sets forth what is specifically taught by Miyakawa. Page 6, line 28 to page 7, line 20 of said previous office action demonstrates how Miyakawa *when combined with the teachings of Kamon and Accad*, teaches that a threshold value is set lower with respect to black, than a threshold of other colors. Miyakawa alone does not teach that a threshold value is set lower with respect to black, than a threshold of other colors. It is the combination of Miyakawa with Kamon in view of Accad that teaches that a threshold value is set lower with respect to black, than a threshold of other colors.

However, given that other considerations discussed above have required the withdrawal of the rejections of claims 1 and 26 under 35 USC §103(a), the arguments with respect to the present section of Applicant's present arguments are rendered moot.

Allowable Subject Matter

4. Claims 1-3, 7, 9-13 and 15-29 are allowed.

The following is an examiner's statement of reasons for allowance:

Independent claims 1 and 26 both recite a particular template matching process, smoothing process, and selecting that are respectively performed to the original multi-value image data by the template matching process unit, smoothing process unit, and selector. Further, claims 1 and 26 both recite separate threshold selection for each of the plurality of colors, wherein the threshold value for black is specifically set lower than the other colors.

Art Unit: 2625

The specific combination of the template matching process unit, smoothing process unit, and selector, along with the particular color-separated threshold selection recited in claims 1 and 26, has not been found by Examiner in the prior art. Two of the closest prior art reference found by Examiner are Bracco (US Patent 6,181,438 B1) and Zable (US Patent 6,195,473 B1). Bracco discloses template matching of original multi-value image data, but does not teach the color separated threshold scheme recited in claims 1 and 26, nor does Bracco teach that the template matching process unit "output[s] the original image data together with a selection signal indicative of a result of the determination of said template matching process unit"; "a smoothing process unit configured to selectively apply the smoothing process to the original image data based on the determination of said template matching process unit so as to output a smoothed image data"; and "a selector configured to select one of the original image data received by the controller and one of the smoothed image data based on the selection signal". Zable discloses template matching of original binary image data, and it would be an obvious modification to perform template matching of multi-value image data, but Zable does not teach the color separated threshold scheme recited in claims 1 and 26, nor does Zable teach that the template matching process unit "output[s] the original image data together with a selection signal indicative of a result of the determination of said template matching process unit"; "a smoothing process unit configured to selectively apply the smoothing process to the original image data based on the determination of said template matching process unit so as to output a smoothed image data"; and "a selector configured to select one of the original image

data received by the controller and one of the smoothed image data based on the selection signal".

Furthermore, Examiner has not found a combination of references which would render either claim 1 or claim 26 obvious to one of ordinary skill in the art at the time of the invention. Accordingly, independent claims 1 and 26 are considered allowable. Claims 2, 3, 7, 9-13, 15-25 and 27-29 are considered allowable due at least to their dependence, either directly or indirectly, from either claim 1 or claim 26.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

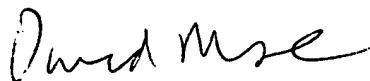
Art Unit: 2625

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James A. Thompson
Examiner
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15 February 2006



DAVID MOORE
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